

IN THE CLAIMS

This listing of claims replaces all prior listings and versions of the claims in this application.

Listing of Claims:

Claim 1 (Currently Amended): An EGR cooler, comprising:
tubes and a shell for enclosing said tubes, cooling water being supplied into and discharged from said shell, exhaust gas from a diesel engine being guided into said tubes to be heat exchanged with said cooling water, wherein an inner periphery of each of said tubes is formed with a spiral protrusion with an inclination angle θ in a range of 26°-50° to a plane perpendicular to an axis of the tube, wherein said inclination angle is in a range of 26°-44°.

Claim 2 (Previously Presented): The EGR cooler according to claim 1, wherein an inner periphery of each of the tubes is formed with a plurality of streaks of spiral protrusions running without crossing and with phases peripherally shifted with respect to each other.

Claim 3 (Previously Presented): The EGR cooler according to claim 1, wherein the height of the spiral protrusion with respect to an inner periphery of the tube is 5-15% of an inner diameter of the tube.

Claim 4 (Previously Presented): The EGR cooler according to claim 2, wherein the height of the spiral protrusion with respect to an inner periphery of the tube is 5-15% of an inner diameter of the tube.

Claim 5 (Canceled).

Claim 6 (Currently Amended): ~~The EGR cooler according to claim 1, An EGR cooler, comprising:~~

tubes and a shell for enclosing said tubes, cooling water being supplied into and discharged from said shell, exhaust gas from a diesel engine being guided into said tubes to be heat exchanged with said cooling water, wherein an inner periphery of each of said tubes is formed with a spiral protrusion with an inclination angle θ in a range of 26°-50° to a plane perpendicular to an axis of the tube, and wherein said spiral protrusions correspond to spiral indentations formed in an exterior surface of each of said tubes.

Claim 7 (New): The EGR cooler according to claim 6, wherein an inner periphery of each of the tubes is formed with a plurality of streaks of spiral protrusions running without crossing and with phases peripherally shifted with respect to each other.

Claim 8 (New): The EGR cooler according to claim 6, wherein the height of the spiral protrusion with respect to an inner periphery of the tube is 5-15% of an inner diameter of the tube.

Claim 9 (New): The EGR cooler according to claim 7, wherein the height of the spiral protrusion with respect to an inner periphery of the tube is 5-15% of an inner diameter of the tube.